

Gu Test: A Progressive Measurement Of Generic Artificial Intelligence

Author: Lifan Gu

Turing Test is invalid, not only it is subjective, but also the language complexity is much less than the human intelligence complexity.

So instead, I design Gu Test, a progressive measurement of generic artificial intelligence by their falsifiability.

Computers, including quantum computers, have systematic problems with high-order logics. Gödel theorems suggest mathematics can not be used to judge the correctness of sciences. There is limitation of Turing Machine. So universal approximation does not exist on Turing Machine, and Technological Singularity is baseless.

If the mode evolution is not stable, not only the judgement based on intuition could be wrong, the statistical results and deep-learning of empirical data also could be severely misleading.

Based on my studies, I design some test programs, to test some artificial intelligence systems, and also test my theories:

1. A 4-dimension experiment space for the strongest Computer Go system, to test its intelligence on Go games, especially for AlphaGo Zero's superhuman claim due to the problems in deep-learning. The paper on Nature does not provide evidences for AlphaGo Zero's superhuman claim.

AlphaGo Zero defeating AlphaGo Master is not an evidence of AlphaGo Zero's superhuman claim. AlphaGo Master defeating some human players in some games is not an evidence of superhuman, either, because superhuman is a concept related to generic human.

Scientific experiments with strictly controlled conditions could falsify the claim. Since there is only one opportunity to gather the experiment results before the computer Go system adjusted by humans, the first round experiment should be done on the strongest Computer Go system.

2. A progressive test scheme for natural language processing (NLP) system, including identifying those language phenomena which cannot be learnt by

computers themselves, but critical to intelligence development.

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The test program could be extended to other kinds of artificial intelligence systems in future.

More researches are possible, including a thought experiment to show the problems of Turing Test, and the fundamentals which could lead to Chinese room phenomena, and a brain research plan based my studies of measuring Computer Go and NLP systems, etc.

However, life-threatening situations happened to me again and again. I cannot do further researches unless in safe personally and economically. Actually, some health degrading could be irreversible, I may not be able to do further research except for the experiment schemes already designed.